



2008 Integrated Energy Policy Report Update

Suzanne Korosec

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2008 IEPR Topics

1. Moving to a higher renewables future
2. Energy efficiency and the CEC's demand forecast (2007 IEPR)
3. Improving electricity procurement (2007 IEPR)
4. Nuclear plant vulnerability to seismic/aging issues (AB 1632)
5. Evaluation of CPUC's Self-Generation Incentive Program (AB 2778)
6. Progress report on past recommendations



Chapter 1:

California's Renewable Future

- Major barriers to higher levels of renewables:
 - Transmission
 - Integration
 - Contract delays/cancellations
 - Cost/rate impacts
 - Environmental permitting



Chapter 1 Recommendations

- CEC should identify ways to reduce obstacles to joint transmission projects between IOUs and POUs; state should increase transmission-related R&D funding



Chapter 1 Recommendations

- 2009 IEPR should identify amount and location of new fossil generation needed; CEC should work with CAISO to understand amount of ramping/regulation needed to support 33% renewables



Chapter 1 Recommendations

- RPS procurement proposals should be reviewed, selected, and ranked by independent parties, not IOUs, if a utility plans to build or purchase its own generating facilities; CPUC should immediately implement feed-in tariff for facilities 20 MW and smaller



Chapter 1 Recommendations

- CEC should work with parties and CPUC to estimate potential cost impacts of 33% target



Chapter 1 Recommendations

- CEC should continue working within RETI and with DOE and BLM on environmental issues; CPUC should direct IOUs to consider potential delays from land use and environmental issues when selecting RPS contracts



Chapter 2: Efficiency and Demand Forecast

- *2007 IEPR* identified need for proper accounting of efficiency and other savings impacts in CEC demand forecast
- CEC undertaking major effort to update and improve methods in forecasting efficiency savings with assistance of CPUC/Itron
- Preliminary forecast to be released in February 2009 which will include improvements in forecasting methods
- Progress report toward efficiency goals



Chapter 2 Recommendations

- CEC should analyze relationship between efficiency impacts in forecast and efficiency impacts assumed in program planning to address potential overlap



Chapter 2 Recommendations

- Continue efforts through CEC working group to improve demand forecast during the *2009 IEPR* cycle



Chapter 2 Recommendations

- Continue independent efforts on evaluating alternative forecasting methods in the *2009 IEPR*



Chapter 2 Recommendations

- CEC should continue to work with POUs to understand how they estimate their remaining energy efficiency economic potential and set targets; to identify all funding sources available to meet energy efficiency goals; and to assist them in achieving their efficiency goals through workshops and collaborative efforts



Chapter 3: Electricity Procurement

- Progress toward *2007 IEPR* recommendations to use common assumptions, reflect risk, use 20- to 30-year analysis period, incorporate environmental impacts and risks, and discount future fuel costs at a social discount rate
- Improving the procurement process
- Aging and once-through cooling plants



Chapter 3 Recommendations

- CEC should continue collaborating in CPUC's LTPP proceeding; 2009 IEPR should assess long-run uncertainties related to electricity demand and natural gas prices and supply; social discount rates should not be used but subject should be revisited



Chapter 3 Recommendations

- Evaluate impacts of relying on OTC and aging plants; better understand interaction of OTC/aging plants and adding renewables; evaluate system stability and the need to upgrade transmission to allow renewables to replace OTC plants



Chapter 3 Recommendations

- Procurement principles:
 - Fair, objective, and transparent; independent parties review, select, and rank bids
 - Considers environmental impacts, likelihood of getting permits, and prior bidder success
 - Open to all bidders including utilities
 - Avoids unnecessary costs that discourage market participants
 - Identifies how bid evaluation considers projects already permitted
 - Protects commercially competitive information



Chapter 4: Nuclear Assessment

- AB 1632 requires evaluation of vulnerability of nuclear plants to disruption due to seismic issues or aging
- Diablo Canyon and SONGS 12% of state's electricity supply - disruption could affect system reliability, public safety, and economy
- Also looked at waste storage and disposal, replacement power, relicensing issues
- Assessment done by MRW & Associates



Chapter 4 Recommendations

- PG&E and SCE should report to CEC in future IEPRs on research efforts into seismic and tsunami hazards; how plants comply with current building codes and seismic design standards; progress in returning to open racking arrangements in spent fuel pools



Chapter 4 Recommendations

- CEC should work with CPUC to develop plan for reviewing the costs and benefits of nuclear plant license extensions, scope of evaluation, and the criteria for assessment



Chapter 5: SGIP Evaluation

- AB 2778 requires CEC to evaluate costs and benefits of expanding Self-Generation Incentive Program to include renewable and fossil DG
- TIAX, LLC conducted evaluation using data provided by IOUs
- Looked at environmental, macroeconomic, and grid impacts



Chapter 5 Recommendations

- Eligibility for SGIP should be based on the overall efficiency and performance of systems, regardless of fuel type



Chapter 5 Recommendations

- CPUC should consider reinstituting formerly eligible engine and turbine technologies that operate on non-renewable and renewable fuels



Chapter 5 Recommendations

- CPUC should require IOUs to procure DG or CHP in areas that provide locational benefits to system



Chapter 5 - Errata

- Added language to clarify that “ultra clean and low emission” fossil DG should be eligible for the SGIP, as well as renewable DG



Chapter 6: Progress Report

- Evaluated 45 recommendations from 2005, 2006 and 2007 IEPRs
- Substantial progress in efficiency and transmission, some progress in procurement
- Generally on-track in demand response, natural gas, transportation, petroleum infrastructure, nuclear, and water/energy
- Need improvement in procurement, renewables, some land use and distribution system



Questions and Public Comment